MATTEO RIONDATO
Curriculum vitae

Science Center, Room C214
25 East Drive
Amherst, MA 01002, USA
rionda@acm.org
https://matteo.rionda.to

EDUCATION

Ph.D.	Computer Science, Brown University, 2014
M.Sc.	Computer Science, Brown University, 2010
M.Sc. (Laurea Specialistica)	Computer Engineering, University of Padua (Italy), 2009
B.Sc. (Laurea)	Information Engineering, University of Padua (Italy), 2007

ACADEMIC APPOINTMENTS

2019–	Assistant Professor, Department of Computer Science, Amherst College
2016–	Visiting Faculty (various titles), Department of Computer Science, Brown University
2015	Postdoctoral Research Associate, Department of Computer Science, Brown University
2014–15	Postdoctoral Researcher, Department of Computer Science, Stanford University

INDUSTRY POSITIONS

2015–18	Research Scientist, Labs, Two Sigma Investments LP
2013	Summer Intern Research Scientist, Web Mining Group, Yahoo Research Barcelona

PUBLICATIONS
Authors in alphabetical order unless marked otherwise (*)
All publications are available from http://matteo.rionda.to/pubs.php

Edited Proceedings

2022   A. Banerjee, Z.-H. Zhou, E. E. Papalexakis, and **M. Riondato**. *Proceedings of the 2022 SIAM International Conference on Data Mining (SDM)*, Society for Industrial and Applied Mathematics

Journal Articles

to appear   * G. Preti, G. De Francisci Morales, and **M. Riondato**. MANIACS: Approximate Mining of Frequent Subgraph Patterns through Sampling. *ACM Transactions on Intelligent Systems and Technology*, DOI:10.1145/3587254

2023   * C. Cousins, C. Wohlgemuth, and **M. Riondato**. BAVARIAN: Betweenness Centrality Approximation with Variance-Aware Rademacher Averages. *ACM Transactions on Knowledge Discovery from Data*, 17(6):78:1–78:47

2022   S. Haddadan, C. Menghini, **M. Riondato**, and E. Upfal. Reducing Polarization and Increasing Diverse Navigability in Graph by Inserting Edges and Swapping Edge Weights. *Data Mining and Knowledge Discovery*. Special Issue on Bias and Fairness, 36(6):2334–2378

2022   * S. Jenkins, S. Walzer-Goldfeld, and **M. Riondato**. SPEck: Mining Statistically-significant Sequential Patterns Efficiently with Exact Sampling. *Data Mining and Knowledge Discovery*, 36(4):1575–1599

2022   * L. Pellegrina, C. Cousins, F. Vandin, and **M. Riondato**. McRapper: Monte-Carlo Rademacher Averages for Poset Families and Approximate Pattern Mining. *ACM Transactions on Knowledge Discovery from Data*, 16(6):124:1–124:29

2021   * M. A. U. Nasir, C. Aslay, G. De Francisci Morales, and **M. Riondato**. TIPTAP: Approximate Mining of Frequent k-Subgraph Patterns in Evolving Graphs. *ACM Transactions on Knowledge Discovery from Data*, 15(3):48:1–48:35

2020   **M. Riondato** and F. Vandin. MiSoSouP: Mining Interesting Subgroups with Sampling and Pseudodimension. *ACM Transactions on Knowledge Discovery from Data*, 14(5):56:1-56:30, **Invited article to the special issue of the best papers from KDD 2018**

2020   * S. Servan-Schreiber, **M. Riondato**, and E. Zgraggen. ProSecCo: Progressive Sequence Mining with Convergence Guarantees, *Knowledge and Information Systems*, 62(4):1313–1340, **Invited article to the special issue on the best papers from ICDM 2018**

2019   C. Cousins and **M. Riondato**. CADET: Interpretable Parametric Conditional Density Estimation with Decision Trees and Forests. *Machine Learning*, 108:1613–1634

2018   **M. Riondato** and E. Upfal. ABRA: Approximating Betweenness Centrality in

Static and Dynamic Graphs with Rademacher Averages. *ACM Transactions on Knowledge Discovery from Data*, 12(5):61:1–61:38

2017	L. De Stefani, A. Epasto, **M. Riondato**, and E. Upfal. TRIÈST: Counting Local and Global Triangles in Fully-dynamic Streams with Fixed Memory Size. *ACM Transactions on Knowledge Discovery from Data*, 11(4):43:1–43:50, **Invited article to the special issue on the best papers from KDD 2016**
2017	* **M. Riondato**, D. García-Soriano, and F. Bonchi. Graph Summarization with Quality Guarantees. *Data Mining and Knowledge Discovery*, 31(2):314–349
2015	* **M. Riondato** and E. M. Kornaropoulos. Fast Approximation of Betweenness Centrality through Sampling. *Data Mining and Knowledge Discovery*, 30(2):438–475
2014	**M. Riondato** and E. Upfal. Efficient Discovery of Association Rules and Frequent Itemsets through Sampling with Tight Performance Guarantees. *ACM Transactions on Knowledge Discovery from Data*, 8(4):20:1–20:32
2010	A. Pietracaprina, **M. Riondato**, E. Upfal, and F. Vandin. Mining Top-*K* Frequent Itemsets through Progressive Sampling. *Data Mining and Knowledge Discovery,* 21(2):310–326, I**nvited article to the special issue on the best papers from ECML PKDD 2010**

Conference Proceedings

to appear	**M. Riondato**. Statistically-sound Knowledge Discovery from Data. *Proceedings of the 2023 SIAM International Conference on Data Mining*, to appear
2022	* G. Preti, G. De Francisci Morales, and **M. Riondato**. ALICE and the Caterpillar: A More Descriptive Null Model for Assessing Data Mining Results. *Proceedings of the 22nd IEEE International Conference on Data Mining* (ICDM), pp. 418–427
2022	* A. Lee, S. Walzer-Goldfeld, S. Zablah, and **M. Riondato**. A Scalable Algorithm for Balanced Sampling (Student Abstract). *Proceedings of the AAAI Conference on Artificial Intelligence* (AAAI), 36(11), pp. 12991–12992
2021	* G. Preti, G. De Francisci Morales, and **M. Riondato**. MANIACS: Approximate Mining of Frequent Subgraph Patterns through Sampling. *Proceedings of the 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 1348–1358
2021	* C. Cousins, C. Wohlgemuth, and **M. Riondato**. BAVARIAN: Betweenness Centrality Approximation with Variance-Aware Rademacher Averages. *Proceedings of the 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 196–206
2021	S. Haddadan, C. Menghini, **M. Riondato**, and E. Upfal. REPBUBLIK: Reducing the Polarized Bubble Radius with Link Insertions. *Proceedings of the 14th ACM*

International Conference on Web Search and Data Mining (WSDM), pp. 139–147
Best Paper Award Honorable Mention

2020   C. Cousins and **M. Riondato**. Sharp uniform convergence bounds through empirical centralization. *Proceedings of the 34th Conference of Neural Information Processing Systems* (NeurIPS), pp. 15123–15132

2020   * L. Pellegrina, C. Cousins, F. Vandin, and **M. Riondato**. McRapper: Monte-Carlo Rademacher Averages for Poset Families and Approximate Pattern Mining. *Proceedings of the 26th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 2165–2174

2019   L. Pellegrina, **M. Riondato**, and F. Vandin. SPuMaNTE: Significant Pattern Mining with Unconditional Testing. *Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 1528–1538

2019   L. Pellegrina, **M. Riondato**, and F. Vandin. Hypothesis testing and statistically-sound pattern mining. *Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 3215–3216

2018   * S. Servan-Schreiber, **M. Riondato**, and E. Zgraggen. ProSecCo: Progressive Sequence Mining with Convergence Guarantees. *Proceedings of the 18th IEEE International Conference on Data Mining* (ICDM), pp. 417–426, **Best Student Paper Award runner-up**

2018   **M. Riondato** and F. Vandin. MiSoSouP: Mining Interesting Subgroups with Sampling and Pseudodimension. *Proceedings of the 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 2130–2139

2016   L. De Stefani, A. Epasto, **M. Riondato**, and E. Upfal. TRIÈST: Counting Local and Global Triangles in Fully-dynamic Streams with Fixed Memory Size. *Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 825–834, **Best Student Paper Award (Research Track)**

2016   **M. Riondato** and E. Upfal. ABRA: Approximating Betweenness Centrality in Static and Dynamic Graphs with Rademacher Averages. *Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 1145–1154

2016   F. Bonchi, G. De Francisci Morales, and **M. Riondato**, Centrality Measures on Big Graphs: Exact, Approximated, and Distributed Algorithms. *Proceedings of the 25th International World Wide Web Conference* (WWW), Companion Volume, pp. 1017–1020

2016   A. Mahmoody, **M. Riondato**, and E. Upfal. Wiggins: Detecting Valuable Information in Dynamic Networks with Limited Resources. *Proceedings of the 9th*

ACM International Conference on Web Search and Data Mining (WSDM), pp. 677–686

2015   **M. Riondato** and E. Upfal. Mining Frequent Itemsets through Progressive Sampling with Rademacher Averages. *Proceedings of the 21st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 1005–1014

2015   **M. Riondato** and E. Upfal. VC-Dimension and Rademacher Averages: From Statistical Learning Theory to Sampling Algorithms. *Proceedings of the 21st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), pp. 2321–2322

2015   A. Anagnastopoulos, L. Becchetti, A. Fazzone, I. Mele, and **M. Riondato**. The Importance of Being Experts: Efficient Max-Finding in Crowdsourcing. *Proceedings of the 36th ACM SIGMOD International Conference on Management of Data* (SIGMOD), pp. 983–998

2014   * **M. Riondato**, D. García-Soriano, and F. Bonchi. Graph Summarization with Quality Guarantees. *Proceedings of the 14th IEEE International Conference on Data Mining* (ICDM), pp. 947–952

2014   **M. Riondato**. Sampling-based Data Mining Algorithms: Modern Techniques and Case Studies. *Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases* (ECML PKDD), pp. 516–519

2014   **M. Riondato** and F. Vandin. Finding the True Frequent Itemsets. *Proceedings of the 14th SIAM International Conference on Data Mining* (SDM), pp. 497–505

2014   *** M. Riondato** and E. M. Kornaropoulos. Fast Approximation of Betweenness Centrality through Sampling. *Proceedings of the 7th ACM International Conference on Web Search and Data Mining* (WSDM), pp. 413–422

2012   * **M. Riondato**, J. A. DeBrabant, R. Fonseca, and E. Upfal. PARMA: A Parallel Randomized Algorithm for Association Rules Mining in MapReduce. *Proceedings of the 21st ACM International Conference on Information and Knowledge Management* (CIKM), pp. 85–94

2012   **M. Riondato** and E. Upfal. Efficient Discovery of Association Rules and Frequent Itemsets through Sampling with Tight Performance Guarantees. *Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases* (ECML PKDD), pp. 25–41

2012   A. Pietracaprina, G. Pucci, **M. Riondato**, F. Silvestri, and E. Upfal. Space-round Tradeoffs for MapReduce Computations. *Proceedings of the 26th ACM International Conference on Supercomputing* (ICS), pp. 235–244

2012   M. Akdere, U. Çetintemel, **M. Riondato**, E. Upfal, and S. B. Zdonik. Learning-

based Query Performance Modeling and Prediction. *Proceedings of the 28th IEEE International Conference on Data Engineering* (ICDE), pp. 390–401

2011   *** M. Riondato**, M. Akdere, U. Çetintemel, S. B. Zdonik, and E. Upfal. The VC-dimension of SQL Queries and Selectivity Estimation through Sampling. *Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases* (ECML PKDD), pp. 661–676

2011   M. Akdere, U. Çetintemel, **M. Riondato**, E. Upfal, and S. B. Zdonik. The Case for Predictive Database Systems: Opportunities and Challenges. *Proceedings of the 5th Biennial Conference on Innovative Data System Research* (CIDR), pp. 167–174

Technical Reports

2018   **M. Riondato**. Sharpe Ratio: Estimation, Confidence Intervals, and Hypothesis Testing. *Two Sigma Technical Report Series*, No. 2018-001

Tutorials

2021   L. Pellegrina, **M. Riondato,** and F. Vandin. Hypothesis testing and statistically-sound pattern mining. SIAM SDM'21

2020   **M. Riondato**. Hypothesis testing and statistically-sound pattern mining. SIAM SDM'20 (co-organized with L. Pellegrina and F. Vandin) *(Conference canceled due to COVID-19)*

2019   L. Pellegrina, **M. Riondato,** and F. Vandin. Hypothesis testing and statistically-sound pattern mining. ACM KDD'19

2016   F. Bonchi, G. De Francisci Morales, and **M. Riondato**. Centrality Measures in Big Graphs: Exact, Approximated, and Distributed Algorithms. WWW'16

2015   **M. Riondato** and E. Upfal. VC-Dimension and Rademacher Averages: From Statistical Learning Theory to Sampling Algorithms. ACM KDD'15, ECML PKDD'15, ACM CIKM'15

Abstracts

2022   **M. Riondato**. Scalable Algorithms for Statistical Hypothesis Testing. SIAM Conference on Mathematics of Data Science

2020   **M. Riondato**. Algorithms for Scalable Hypothesis Testing. SIAM Conference on Mathematics of Data Science *(Conference postponed due to COVID-19)*

AWARDS

2021	Best Paper Award Honorable Mention at ACM International Conference on Web Search and Data Mining (ACM WSDM'21)
2020	Best reviewer award for the journal track of ECML PKDD'20
2018	Invited article to the special issue of Knowledge and Information Systems for the best papers of IEEE ICDM'18
2018	Best Student Paper Award runner-up at IEEE International Conference on Data Mining (IEEE ICDM'18)
2018	Invited article to the special issue of ACM Transactions on Knowledge Discovery from Data for the best papers of ACM KDD'18
2018	Invited Young Researcher to the 6th Heidelberg Laureate Forum
2016	Best Student Paper Award (Research Track) at ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (ACM KDD'16)
2014	Nominated for the ACM SIGKDD Doctoral Dissertation Award
2014	Best Student Poster Award at SIAM International Conference on Data Mining (SDM'14)
2010	Article selected for the special issue of Data Mining and Knowledge Discovery for the best papers of ECML PKDD'10

GRANTS AND FELLOWSHIPS

2020-23	PI on NSF Award #2006765: III: Small: RUI: Scalable and Iterative Statistical Testing of Multiple Hypotheses on Massive Datasets (USD 373k, no co-PI)
2021-22	Amherst College Provost's Research Fellowship (100% of 9 months salary)
2019	PI on NSF Award #1918446: NSF Student Travel Grant for 2019 SIAM International Conference on Data Mining (SDM) (USD 25k)
2015	SIAM/NSF Early Career Travel Award to SIAM Intl. Conference on Data Mining
2014	SIAM Travel Award to SIAM Intl. Conference on Data Mining
2014	Brown University Dissertation Fellowship
2013	Yahoo Research Barcelona Summer Internship
2011	Italy MIUR Research Fellowship
2009	Brown University Graduate Fellowship

INVITED TALKS

2021	Communication in Science Panel, Summer Research Undergraduate Fellows Program, Amherst College, Amherst (MA, USA), June 24
2021	RePBubLik: Reducing the Polarized Bubble Radius with Link Insertions. Aris Gionis' Research Group Meeting, KTH Royal Institute of Technology, over Zoom, February 18
2020	McRapper: Monte-Carlo Rademacher Averages for Poset Families and Approximate Pattern Mining, AI Seminar, Fidelity, over Zoom, October 28
2020	McRapper: Monte-Carlo Rademacher Averages for Poset Families and Approximate Pattern Mining, Theory Seminar, UMass Amherst, Amherst (MA, USA), October 6
2020	Advancing Science by (not) Testing Billions of Hypotheses, Faculty Colloquium, Amherst College, Amherst (MA, USA), September 25
2020	Algorithms for Centrality Measures, CS591 – Large-Scale Graph Mining, Boston University, Boston (MA, USA), April 13
2019	SPuManTE: Significant Pattern Mining with Unconditional Testing, Network Science Institute, Northeastern University, Boston (MA, USA), November 8
2019	Making Better Use of Data, MassMutual Research Bytes series, Amherst (MA, USA), November 5
2019	Making Better Use of Data, Data Management Lab, Boston University, Boston (MA, USA), October 25
2019	Making Better Use of Data, Department of Computer Science, Mount Holyoke College, South Hadley (MA, USA), October 16
2019	CaDET: Interpretable Parametric Conditional Density Estimation with Decision Trees, Workshop on Computation and Statistics in Data Science (CaStleD'19), Bertinoro (FC, Italy), October 1
2019	Pseudodimension for Data Analysis, Workshop on Data Science in Low-dimensional Spaces, ICERM, Brown University, Providence (RI, USA), May 17
2018	MiSoSouP: Mining Interesting Subgroups with Sampling and Pseudodimension, Google Research NY, New York (NY, USA), December 4
2018	Approximation Algorithms for Betweenness Centrality, COMPSCI 134 – Networks, Harvard University, Cambridge (MA, USA), November 26
2018	Data Mining: Tasks, Systems, Challenges, and Research Directions, Amherst College, Amherst (MA, USA), November 5

2018	Statistical Learning Theory meets Data Mining: Fast, High-quality, Sampling-based Approximation Algorithm, ISI Foundation, Turin (Italy), September 8
2018	Sampling-based Approximation Algorithms for Data Analysis using Rademacher Averages, Theory of Computation Seminar, Harvard University, Cambridge (MA, USA), May 7
2018	Statistical Learning Theory meets Data Mining: Fast, High-quality, Sampling-based Approximation Algorithms, Boston College, Chestnut Hill (MA, USA), January 31
2018	Statistical Learning Theory meets Data Mining: Fast, High-quality, Sampling-based Approximation Algorithms, Amherst College, Amherst (MA, USA), January 25
2017	Betweenness Centrality Estimation with Rademacher Averages, National Institute of Informatics, Tokyo (Japan), November 16
2017	Betweenness Centrality Estimation with Rademacher Averages, Center for Data Science, New York University, New York (NY, USA), May 17
2017	Rademacher Averages: Theory and Practice, Dagstuhl Seminar 17141, Schloss Dagstuhl (Germany), April 6
2017	Random Sampling for Data Mining: The Case of Triangles in Dynamic Streams, School of Computer Science, McGill University, Montreal (QB, Canada), February 21
2017	Random Sampling for Data Mining: The Case of Triangles in Dynamic Streams, College of Computer and Information Science, Northeastern University, Boston (MA, USA), February 15
2017	The Neverending Data – Streaming, Sampling, and Triangle Counting, Department of Computer Science, Amherst College, Amherst (MA, USA), January 27
2016	Approximating Betweenness Centrality through Sampling with the Rademacher Averages, Data Management Lab, Boston University, Boston (MA, USA), November 18
2016	Algorithmic Data Science = Theory + Practice, IEEE MIT Undergraduate Technology Research Conference, Massachusetts Institute of Technology, Cambridge (MA, USA), November 5
2016	TRIÉST: Counting Local and Global Triangles in Fully-dynamic Streams with Fixed Memory Size, Database Group, Carnegie Mellon University, Pittsburgh (PA, USA), October 24
2016	Approximating Betweenness Centrality through Sampling with the Rademacher Averages, Network Science Institute, Northeastern University, Boston (MA,

USA), October 17

2016	Graph Summarization with Quality Guarantees, Department of Information Engineering, University of Padua, Padua (Italy), September 26
2016	ABRA: Venice, Sampling, and Betweenness Centrality Estimation, Social Impact through Network Science (SINS), Venice (Italy), June 8
2015	Data is …, Stevens Institute of Technology, Hoboken (NJ, USA), December 12
2015	Travel Pictures from Another World: Statistical Learning Theory Meets Data Mining, Monash University, Melbourne (Australia), October 28
2015	Modern Sampling for Modern Data: The Case of Frequent Itemsets Mining, Two Sigma Investments, New York (NY, USA), March 5
2014	Statistical Learning and Data Mining: A Lasting Marriage, Data Mining: Beyond The Horizon Workshop, University of Bristol, Bristol (UK), November 20
2014	Efficient Frequent Itemsets Mining through Sampling, Database Research Group, University of Waterloo, Waterloo (ON, Canada), May 7
2014	Efficient Frequent Itemsets Mining through Sampling, Database Group, MIT CSAIL, Cambridge (MA, USA), April 10
2014	Taming the Challenges of Big Data with Statistical Data Analytics, Department of Computer Science, Boston College, Boston (MA, USA), February 7
2013	Fast Betweenness Estimation through Sampling, Data Management Lab, Boston University, Boston (MA, USA), October 17
2013	Fast Betweenness Estimation through Sampling, Yahoo! Labs Barcelona, Barcelona (Spain), June 13
2013	Fast Betweenness Estimation through Sampling, Advanced Computing Group, University of Padua, Padua (Italy), May 30
2013	Statistical Learning Theory meets Knowledge Discovery, Brown CS Industrial Partners Program Symposium, Providence (RI, USA), April 2
2011	Statistical Learning Theory meets Databases, Advanced Computing Group, University of Padua, Padua (Italy), June 24
2010	Top-k Frequent Itemsets Mining through Sampling, Advanced Computing Group, University of Padua, Padua (Italy), September 16
2010	Mining Top-K Frequent Itemsets Through Progressive Sampling, Department of Computer Science, Chalmers University of Technology, Gothenburg (Sweden), August 5

ADDITIONAL RESEARCH EXPERIENCE AND VISITS

2017	National Institute of Informatics (Tokyo, Japan) – Visiting Researcher, November
2015	Monash University (Melbourne, Australia) – Visiting Researcher, October
2012	Sapienza University of Rome (Rome, Italy) – Visiting Ph.D. Student, June–September
2011	University of Padua (Padua, Italy) – Research Fellow, June–September
2010	Chalmers University of Technology (Gothenburg, Sweden) – Visiting Ph.D. Student, August
2008–9	Brown University (Providence, RI, USA) – Visiting Student, October–June

TEACHING EXPERIENCE

Amherst College

Spring'23	COSC-111 Introduction to Computer Science 1
	COSC-351 Information Theory
	COSC-490 Database Implementation (special topics, 1 student)
Fall '22	COSC-111 Introduction to Computer Science 1
	COSC-355 Network Science
Spring '21	COSC-111 Introduction to Computer Science 1
	COSC-254 Data Mining
	COSC-490 Topics in Data Science (special topics, 1 student)
Fall '20	COSC-111 Introduction to Computer Science 1 (2 sections)
	COLQ-390H Learning by Doing: Internship and Fieldwork Reflection
Spring '20	COSC-111 Introduction to Computer Science 1
	COSC-355 Network Science
	COSC-490 Database Implementation (special topics, 2 students)
	COSC-490 Advanced Analytics (special topics, 1 student)
Fall '19	COSC-111 Introduction to Computer Science 1
	COSC-257 Databases
	COSC-490 Regression and Time Series (special topics, 1 student)
	STAT-490H Theory meets Practice (co-taught)

| Spring '19 | COSC-111 Introduction to Computer Science 1 |
| | COSC-254 Data Mining |

Brown University

| Spring '18 | CSCI-1951-G Optimization Methods in Finance |
| Spring '16 | CSCI-1951-G Optimization Methods in Finance |

SUPERVISION OF THESES AND OF STUDENTS OR INTERNS

Honors Theses

2022-23	Shengdi Li, *The CurveBall Algorithm for Significant Pattern Mining*
	Sarah Park, *Finding the True Frequent Itemsets with Hypothesis Testing*
	Stefan Walzer-Goldfeld, *Mining Statistically Significant High-Utility Itemsets*
2021-22	Alexander Lee, *DiFfuSR: Distortion-free Swap-randomization for Statistically-testing Data Mining Results* (Computer Science Prize))
	Adam Gibbs, *Efficient Subgraph Matching with Security Applications* (not completed)
2020-21	Isaac Caruso, *Modeling Biological Species Presence with Gaussian Processes*
2019-20	Kathleen Isenegger, *Approximate Mining of High-Utility Itemsets through Sampling*
	Shukry Zablah, *A Parallel Algorithm for Balanced Sampling* (Computer Science Prize)

Student and Intern Supervision (not including Teaching Assistants and Honors Students)

Daniel Flores Garcia, research assistant, Amherst College, Spring 2023 – Ongoing

Wanting Jiang, research assistant, Amherst College, Spring 2023 – Ongoing

Hailin Kim, research assistant, Amherst College, Spring 2023 – Ongoing

Michelle Contreras Catalan, research assistant, Amherst College, Fall 2022 – Ongoing

Maryam Abuissa, research assistant, Amherst College, Spring 2022 – Ongoing

Dhyey Mavani, research assistant, Amherst College, Fall 2022

Stefan Walzer-Goldfeld, research assistant, Amherst College, Fall 2020 – Summer 2022

Steedman Jenkins, research assistant, Amherst College, Summer 2021 – Fall 2022

Alexander Lee, research assistant, Amherst College, Fall 2020 – Spring 2022

Chloe Wohlgemuth, research assistant, Amherst College, Fall 2020 – Spring 2022

Vaibhav Shah, student intern, Amherst College, Fall 2021

Maryam Abuissa, student intern, Amherst College, Summer 2021

Holden Lee, research assistant, Amherst College, Spring 2020 – Spring'21

Margaret Drew, student intern, Amherst College, Summer 2020

Zhiyuan Jia, research assistant, Amherst College, Summer 2019

Conrad Kuklinsky, research assistant, Amherst College, Spring 2019 – Fall 2020

Cyrus Cousins, research intern, Labs team, Two Sigma Investments, Summer 2018

Sacha Servan-Schreiber, research assistant, Brown University, Spring – Fall 2018

SERVICE TO THE SCIENTIFIC COMMUNITY

Editorial Boards

Data Mining and Knowledge Discovery (Action Editor)
Machine Learning (Guest editorial board for ECML PKDD '23, '22, '21, '20, '19)

Organizing Committees

ECML PKDD '23 (Doctoral Forum Co-Chair)

SIAM SDM '22 (Program Committee Co-Chair)

SIAM SDM '21 (Tutorial Chair)

SIAM SDM '20, '19 (Doctoral Forum Co-chair)

SIAM SDM '18 (Sponsorship Co-chair)

Foundations of Learning from Data Workshop (Bertinoro, Italy, September 2018)(Co-Organizer)

Program Committees

AAAI '23 (Senior PC), '20, '19

ACM CIKM '21,'20, '19, '18, '17, '16, '15, '14

ACM KDD '23 (Senior PC), '22 (Senior PC), '21 (Senior PC), '20, '19, '18, '17 (Senior PC), '16, '15

ACM WSDM '23 (Senior PC), '22 (Senior PC), '21, '20, '19, '17

ECML PKDD '22, '21, '20, '19, '18, '17, '16

Grace Hopper '18, '16

ICML '19

IEEE ICDE '18, '17

IEEE ICDM '23, '22, '21 (Area Chair), '20, '19, '18 '16

IJCAI '19

NetSci '20, '19

NeurIPS '22, '21, '20, '19

SIAM SDM '23 (Senior PC), '22 (PC Chair) '21 (Senior PC), '20, '19

WWW '23 (Senior PC), '22 (Senior PC), '21 (Senior PC), '20, '19, '18, '17, '16

Journal Reviewing

ACM Transactions on Database Systems (TODS)
ACM Transactions on Information Systems (TOIS)
ACM Transactions on Knowledge Discovery from Data (TKDD)
Algorithmica
Data Mining and Knowledge Discovery (DMKD/DAMI)
Discrete Applied Mathematics (DAM)
Engineering Applications of Artificial Intelligence (EAAI)
Expert Systems with Applications (ESWA)
Journal of Machine Learning Research (JMLR)
Journal of Parallel and Distributed Computing (JPDC)
Knowledge and Information Systems (KAIS)
IEEE Access

IEEE Open Access Journal of the Computer Society (OJCS)

IEEE Transactions on Knowledge and Data Engineering (TKDE)

IEEE Transactions on Network Science and Engineering (TNSE)

IEEE Transactions on Parallel and Distributed Systems (TPDS)

IEEE Transactions on Services Computing (TSC)

Information Science (INS)

Machine Learning (Mach. Learn.)

PeerJ Computer Science

PLOS ONE

The Computer Journal

VLDB Journal (VLDBJ)

The World Wide Web Journal (WWWJ)

Conference Reviewing
The list does not include reviews done as Program Committee member

LATIN'20, STACS'20, MFCS'17, SODA'17, ISAAC'15, SIAM SDM'15, IEEE ICDE'15, DISC'14, ACM WSDM'14, WWW'14, ICALP'14, IEEE BigData'13, MFCS'13, ACM WSDM'13, IEEE IPDPS'12, ACM ICS'12, RANDOM'11

Conference Research Session Chair

SIAM MDS '22 – Algorithms

ACM KDD '22 – Classification and Clustering

ACM WSDM '22 – Web Search

ACM KDD '21 – Theory: Learning and Generalization

SIAM SDM '21 – Foundations II

IEEE ICDM '20 – Graph Mining II

ACM KDD '20 – Data Mining Methods

WWW'20 – Social Network Analysis III

SIAM SDM '19 – Patterns

ACM KDD '18 – Unsupervised Learning II

ACM KDD '17 – Graphs I

ACM KDD '16 – Graphs I

IEEE ICDM '16 – Theory

ECML PKDD '16 – Graphs and Social Networks 1

WWW '16 – Social Networks and Graph Analysis 1

ACM KDD '15 – Social and Graphs 4

Grant Reviewing

NSF SBIR/STTR Program

Sigma Delta Epsilon (Graduate Women in Science) National Fellowship

Grace Hopper Conference Scholarship 2016, 2017

DEPARTMENTAL / UNIVERSITY SERVICE

Faculty Committee on Student Fellowships, Amherst college – Faculty Representative, 7/2022 – Ongoing

Data Science Initiative Working Group, Amherst College – Dept. Representative, 1/2019 – Ongoing

Amherst College Association for Computing Machinery (ACM) Student Chapter – Sponsoring Faculty, 10/2019 – Ongoing

Untenured Faculty Consultative Group, Amherst College – Faculty Representative, 10/2021 – 6/2022

Graduate Student Council, Brown University – President, 4/2011 – 12/2012

ADDITIONAL TRAINING

2014   Brown University Harriet W. Sheridan Center for Teaching and Learning
            Teaching Certificate I: Reflective Teaching

2012   Summer School on Massive Data Mining, IT University, Copenhagen, Denmark

PROFESSIONAL MEMBERSHIPS

Association for Computing Machinery (ACM), 2012 – present
        Special Interest Group on Knowledge Discovery from Data (SIGKDD)

Special Interest Group on Management of Data (SIGMOD)
Special Interest Group on Algorithms and Computation Theory (SIGACT)

Institute of Electrical and Electronic Engineers (IEEE), 2012 – present
IEEE Computer Society

Society for Industrial and Applied Mathematics (SIAM), 2012 – present
SIAM Activity Group on Data Mining and Analytics (SIAG/DMA)

The latest revision of this CV is available from http://matteo.rionda.to/MatteoRiondato-CV.pdf
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